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09/923,941	08/07/2001	Masahiro Ikariko	F-7110	4552
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Jordan and Hamburg 122 East 42nd Street New York, NY 10168		EXAMINER JONES, SCOTT E		
		ART UNIT 3713 PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,941

Applicant(s)

IKARIKO, MASAHIRO

Examiner

Scott E. Jones

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 21 July 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 and 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This office action is in response to the amendment filed on July 21, 2003 in which applicant amends claims 1, 3-8, and 10, adds claims 11-15, and responds to the claim rejections. Claims 1-15 are pending.

Specification

2. The disclosure is objected to because of the following informalities:
 - On page 2 of the specification, the title – Brief Summary of the Invention is missing. The examiner believes the title should be placed between the first and second paragraphs.

Correction is required.

Claim Objections

3. Claim 1 is objected to because of the preamble is unclear. The examiner believes the preamble should be written similar to that of claims 14 and 15, which state, "...on a monitor launching an attack, said fighting video game machine comprising:" instead of "...on a monitor launching, comprising:"

Correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 9-10, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (U.S. 5,862,229).

Shimizu discloses a sound generator synchronized with an image display for generating sound effects having three-dimensional quality on the basis of direction, distance, and other relationships between two displayed objects. Shimizu additionally discloses:

Regarding Claims 1 and 14:

- a sound control unit for controlling a sound output corresponding to an attacking position of the enemy character (Column 11, lines 23-32),
- a first and a second sound generator provided in different positions to produce the sound output corresponding to the attacking position (Figure 1 (42R, 42L), Column 2, lines 10-17, Column 3, lines 57-62, and Column 5, lines 18-65), and
- attacking position judging means for judging whether the attacking position of the enemy character displayed on the monitor is less or greater than a threshold value of distance from the viewing point of the simulated camera (Figures 3, 5, 12, Column 1, line 50-Column 2, line 3, Column 4, lines 40-44, and Column 5, lines 18-65).

Regarding Claim 2:

- the first sound generator is provided in a position distant from the play area and the second sound generator is provided in a position proximate to the play area (Column 5, lines 49-65). The first and second audio signals don't necessarily correspond to the left or right speakers. The first and second audio signals could correspond to either one of the speakers.

Shimizu seems to lack explicitly stating:

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Regarding claims 1 and 14:

- wherein the sound control unit causes a sound to be outputted from the first sound generator when the attacking position is greater than the threshold value of distance while causing the sound to be outputted from the second sound generator when the attacking position is less than the threshold value of distance.

Regarding Claim 9:

- wherein the first sound generator is arranged at a position higher than the monitor while the second sound generator is arranged at a position lower than the monitor.

Regarding Claim 10:

- wherein the first sound generator includes a single loudspeaker provided substantially a central position along a left-right direction of said fighting video game machine and the second sound generator includes a pair of loudspeakers, provided above the monitor and left and right sides of the monitor.

Regarding claims 1 and 14, although Shimizu does not disclose outputting a sound from the first sound generator when the attacking position is greater than the threshold value of distance while causing the sound to be outputted from the second sound generator when the attacking position is less than the threshold value of distance, Shimizu does disclose outputting a realistic sound effect to a plurality of speakers based upon the distance between two objects (enemy character and viewpoint of hero character). Therefore, to one having ordinary skill in the art at the time of applicant's invention, it would have been obvious to use multiple audio output devices to generate sounds based on the distance between two positions. One would be

motivated to do so because this causes the game machine to generate realistic sound effects making the game more interesting to play.

Regarding claims 9 and 10, to one having ordinary skill in the art, it would have been obvious to arrange the loudspeakers as recited in claims 9 and 10 on a gaming machine. To one having ordinary skill in the art at the time of applicant's invention, it was well known to provide audio control systems in video games to create a realistic effect. Therefore, it would have been obvious to arrange the loudspeakers in such a way as to create realistic sounds as a player plays a game.

6. Claims 6-8, 11-13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (U.S. 5,862,229) in view of Koji (JP 08-221187).

Shimizu discloses that as discussed above regarding claims 1-2, 9-10, and 14. Shimizu additionally discloses:

Regarding claims 11 and 15:

- a game control unit for controlling the progress of the game and an image control unit for performing calculation of coordinates of the enemy characters when viewed from the viewing point of the simulated camera (Figures 3, 5, 12, Column 1, line 50-Column 2, line 3, Column 4, lines 40-44, and Column 5, lines 18-65).

However, Shimizu seems to lack explicitly disclosing:

Regarding Claims 6 and 15:

- further comprising a head detecting unit for detecting a position of the head of a game player in the play area along a left-right direction of said fighting video game machine.

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Regarding Claims 8 and 15:

- the sound control unit controls the outputted sound volumes of the loudspeakers depending upon the detected result of the head of the player along the left-right direction.

Regarding Claims 12 and 15:

- a head position detected by the head detector is used as the viewpoint of the simulated camera.

Regarding Claim 13:

- the viewing point of the simulated camera coincides with the eyes of the game player.

Koji, like Shimizu, teaches of a game system that provides a viewpoint on a display based on an object in a game. Although Koji discloses sound is generated during the game, Koji lacks disclosing generating a realistic sound based on the distance between objects. Koji teaches of a method and system for providing a viewpoint image on a display based upon the game player's detected head position. Furthermore, Koji teaches:

Regarding Claims 6 and 15:

- further comprising a head detecting unit (11) for detecting a position of the head of a game player in the play area along a left-right direction of said fighting video game machine (Fig. 1 and disclosure).

Regarding Claims 8 and 15:

- the sound control unit controls the outputted sound volumes of the loudspeakers depending upon the detected result of the head of the player along the left-right direction. Although Koji does not explicitly disclose this feature, it would be obvious

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to generate sounds based on distance to simulate reality, just a Shimizu generates sounds based upon the distance between two objects to simulate reality.

Regarding Claims 12 and 15:

- a head position detected by the head detector is used as the viewpoint of the simulated camera (disclosure).

Regarding Claim 13:

- the viewing point of the simulated camera coincides with the eyes of the game player (disclosure).

It would have been obvious to one having ordinary skill in the art to incorporate the head tracking system of Koji in Shimizu. One would be motivated to do so because this would enable the viewpoint of the game to be that of the game player, rather than the hero character, and the game player would be one of the objects in the game. Thus, one could use the same concept Shimizu uses to generate sound between two objects displayed on a screen to generate sound between an object on the screen and a game player. This makes the game more attractive to play because the player is directly involved in the game and the sound effects emulate reality.

7. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (U.S. 5,862,229) in view of Kawamoto (U.S. 6,361,439) and in further view of Muehle et al. (U.S. 5,980,254).

Shimizu discloses that as discussed above regarding Claims 1-2, 9-10, and 14. However, Shimizu seems to lack explicitly disclosing:

Regarding Claim 3:

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- the attack is shooting, the sound control unit causes a hitting sound to be outputted from the first sound generator when the attacking position judging means judges that a fired bullet has hit an obstacle displayed before the viewing point of the simulated camera while causing a sound hurtling through the air to be outputted from the second sound generator when the attacking position judging means judges that the fired bullet has passed beside the viewing point of the simulated camera.

Regarding Claim 4:

- the attack is shooting, the sound control unit causes a hitting sound to be outputted from the first sound generator when the attacking position judging means judges that a fired bullet has hit an obstacle displayed at a distance before the viewing point of the simulated camera while causing a hitting sound to be outputted from the second sound generator when the attacking position judging means judges that the fired bullet has hit an obstacle displayed right before the viewing point of the simulated camera.

Regarding Claim 5:

- the attacking position judging means is adapted to judge that the bullet has hit the viewing point of the simulated camera, and the sound control unit causes a target-hitting sound to be outputted from the second sound generator when the attacking position judging means makes such a judgment.

Kawamoto teaches of a shooting video game wherein the frequency components of the generated sounds are altered according to the distance between the sound generation position and listening position in the virtual game space. Both Kawamoto and Shimizu relate to video games

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having realistic sound generating means and are therefore analogous art. Furthermore,

Kawamoto teaches:

Regarding Claim 3:

- the attack is shooting, the sound control unit causes a hitting sound to be outputted from the first sound generator when the attacking position judging means judges that a fired bullet has hit an obstacle displayed before the viewing point of the simulated camera (Figures 2, 5, Column 2, lines 49-63, Column 3, lines 31-40, and Column 3, line 59-Column 4, line 7).

Regarding Claim 4:

- the attack is shooting, the sound control unit causes a hitting sound to be outputted from the first sound generator when the attacking position judging means judges that a fired bullet has hit an obstacle displayed at a distance before the viewing point of the simulated camera while causing a hitting sound to be outputted from the second sound generator when the attacking position judging means judges that the fired bullet has hit an obstacle displayed right before the viewing point of the simulated camera (Figures 2, 5, Column 2, lines 49-63, Column 3, lines 31-40, and Column 3, line 59-Column 4, line 7).

Regarding Claim 5:

- the attacking position judging means is adapted to judge that the bullet has hit the viewing point of the simulated camera, and the sound control unit causes a target-hitting sound to be outputted from the second sound generator when the attacking

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position judging means makes such a judgment (Figures 2, 5, Column 2, lines 49-63, Column 3, lines 31-40, and Column 3, line 59-Column 4, line 7).

Furthermore, the combination of Shimizu in view of Kawamoto seems to lack explicitly disclosing:

Regarding Claim 3:

- while causing a sound hurtling through the air to be outputted from the second sound generator when the attacking position judging means judges that the fired bullet has passed beside the viewing point of the simulated camera.

However, Muehle et al. teaches of an electronically controlled weapons range with return fire that can be implemented in combat games. Muehle et al., like Kawamoto and Shimizu, relates to a video game having realistic sound generating means and is therefore analogous art. Furthermore, Muehle et al. teaches:

Regarding Claim 3:

- while causing a sound hurtling through the air to be outputted from the second sound generator when the attacking position judging means judges that the fired bullet has passed beside the viewing point of the simulated camera (Column 7, lines 12-15).

It would have been obvious to one having ordinary skill in the art, at the time of the applicant's invention, to incorporate the audio features of Muehle and Kawamoto in Shimizu. One would be motivated to do so because the system would impart a sense of distance to the sound effects audio without losing the powerful impact of the sound effects audio making the game experience more realistic.

Response to Arguments

8. Applicant's arguments filed July 21, 2003 have been fully considered but they are not persuasive.

9. Applicant's arguments, see Paper No. 9, filed July 21, 2003, with respect to figure 6B have been fully considered and are persuasive. The objection of the drawing has been withdrawn.

10. Applicant's arguments, see pages 3-4 and 14, filed July 21, 2003, with respect to the specification have been fully considered and are persuasive. The objection of the specification has been withdrawn.

11. Applicant's arguments, see pages 5-8 and 14, filed July 21, 2003, with respect to the rejection to claims 1-10 under 35 U.S.C. 112, second paragraph have been fully considered and are persuasive. The of rejection of the claims under 35 U.S.C. 112, second paragraph has been withdrawn.

12. Applicant disagrees with the rejection to claims 1-2 and 6-8 under 35 U.S.C. 102(b) as being anticipated by Shimizu (U.S. 5,862,229). Applicant alleges Shimizu lacks teaching, "wherein the sound control unit causes a sound to be outputted from the first sound generator when the attacking position is greater than the threshold value of distance while causing it to be outputted from the second sound generator when the attacking position is less than the threshold value of distance." The examiner agrees Shimizu lacks explicitly disclosing "sound to be outputted from the first sound generator when the attacking position is greater than the threshold value of distance while causing it to be outputted from the second sound generator when the attacking position is less than the threshold value of distance." However, this particular

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limitation is presently amended to overcome a rejection under 35 U.S.C. 112, second paragraph because the claim language was previously unclear. Furthermore, the examiner believes it would have been obvious to implement this limitation in Shimizu since Shimizu already provides a realistic sound effect based upon the distance between two objects.

13. Applicant alleges Shimizu does not disclose the “detection of the distance between the enemy attacking point and the viewing point.” However, the examiner respectfully disagrees. This feature is clearly described in the flow diagram in figure 12 and column 11, lines 33-67.

14. Applicant’s arguments in the first two paragraphs of page 17 are spurious since they only address figures 2 and 3 and not figures 5 and 12 of Shimizu as cited by the examiner.

15. Regarding claim 6, applicant alleges Shimizu “fails to detect the position of the head of the object.” Applicant goes on to say “Shimizu only teaches movement of the line of sight of the virtual camera is in synchronization with the movement of the line of sight of the hero character, in some cases, when the hero character moves.” The examiner asserts if the line of sight of the character is detected and the viewpoint (virtual camera) moves based on the line of sight detected, then detecting the position of a head must be accomplished.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Okuda et al. '518, Fukunaga et al. '121, Tice '507, Beal '639, Gardner '476, Zwern '364, Pryor '617, and Omori et al. '017 disclose game and simulation systems having head tracking devices.

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17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott E. Jones whose telephone number is (703) 308-7133. The examiner can normally be reached on Monday - Friday, 8:30 A.M. - 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Walberg can be reached on (703) 308-1327. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

SEJ
sej


Teresa Walberg
Supervisory Patent Examiner
Group 3700